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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,358

09/11/2003

Lijun Sun

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5512

21005

7590

08/04/2006

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EXAMINER

ANDERSON, REBECCA L

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,358

Applicant(s)

SUN ET AL.

Examiner

Rebecca L. Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 11-13, 22-24 and 26-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-10 and 14-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-30 are currently pending in the instant application. Claims 11-13, 22-24 and 26-30 are withdrawn from consideration as being for non-elected subject matter. Claims 1-10 and 14-21 are objected. Claim 25 appears allowable over the prior art of record.

Election/Restrictions

Applicant's election with traverse of Group I in the reply filed on 9 January 2006 and the further election of the compound of the formula IIa wherein ring A is pyridine; R0 is -H; R3 is -H; X is -C(O)-; and R1 is 4-cyanylphenyl in the reply filed 2 May 2006 is acknowledged. The traversal is on the ground(s) that the restriction with respect to groups I and II is improper because Applicant's invention of Group I is generic to the invention of Group II. This is not found persuasive because the invention of group II contains additional reaction steps and is therefore considered an independent and distinct process which differs materially in reaction steps, reactants and reaction conditions and final products. The search for Group I differs from the search for Group II. In regards to the restriction within each group, Applicant argues that the compounds recited in the claims share a common utility common structural feature essential to the utility and the restriction requirement is improper with respect to the Markus groups of the claims in view of *In re Weber*, 580 F. 2d 455, 198 USPQ 328 (CCPA 1978) according to MPEP 803.2). This argument is not found persuasive as in traversing the restriction requirement of the intra-claim restriction within the elected Group I, applicant has relied on the decision of *In re Weber*, 198 U.S.P.Q. 328 (CCPA 1978). However,

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this is considered non-persuasive because this decision involved rejections of claims under 35 U.S.C. 121 and not a restriction as is the case herein. The issue here is one of restriction. 35 U.S.C. 121 gives the Commissioner the authority to restrict to one invention those applications which contain two or more inventions, i.e. limit the examination of an application to a single invention. Thus, the requirement to restrict in this application is predicated on the fact that the elected subject matter taken as a whole and the non-elected subject matter taken as a whole are so different in structure and element as to be patentably distinct, i.e. a reference which anticipated but one group of compounds would not even render obvious the other group (two or more inventions involved). Applicants have not argued otherwise or presented any evidence to show that the various groups constitute the same invention, i.e. are obvious over each other. Applicants' traversal of the restriction requirement is based on its intra-claim restriction. Again, it is noted that the restriction requirement here is predicated on the premise that the various compounds involved (i.e. the elected and non-elected compounds) differ in structure and element so much so as to be patentably distinct, i.e., a reference which anticipated but the elected compounds claimed would not even render obvious the others. Accordingly, the requirement to restrict is considered proper and is maintained.

While applicant states on page 2 of the response filed 2 May 2006 that the election of a specific compound is for search purposes, it is noted that as stated on pages 3 and 4 of the restriction requirement dated 6 December 2005, the election of a specific compound is a further restriction requirement and applicant will be given a chance to properly respond to the restriction requirement.

Therefore, as stated on pages 3 and 4 of the restriction requirement,

The elected invention for search and examination is:

the method of preparing a compound represented by structural formula IIa:

wherein ring A is pyridine; X is a methanone; R0 is -H or a substituted or unsubstituted aliphatic group; R1 is -H, a substituted or unsubstituted aliphatic group or a substituted or unsubstituted aryl group; each R2 is independently a substituted or unsubstituted aliphatic group; R3 is -H or a substituted or unsubstituted aliphatic group, provided that if R3 is -H, at least one of R2 is a secondary or tertiary alkyl group; each R4 is -H or a substituted or unsubstituted aliphatic group;

the method of preparing a compound represented by structural formula IIb

wherein: ring B is unsubstituted or substituted; X is a methanone; R0 is -H or a substituted or unsubstituted aliphatic group; R1 is -H, a substituted or unsubstituted aliphatic group or a substituted or unsubstituted aryl group; each R2 is independently a substituted or unsubstituted aliphatic group; R3 is -H or a substituted or unsubstituted aliphatic group provided that if R3 is -H, at least one of R2 is a secondary or tertiary alkyl group; each R4 is -H or a substituted or unsubstituted aliphatic group;

and the method of preparing a compound represented by structural formula VII

wherein: R2 is -C(CH₃)₃; R0 and R3 are -H; R4 is -CH₃; and R14 is -CH₃, CH₂CH₃, -OCH₃, -CN, -F or -Cl.

The remaining subject matter of claims 1-10, 14-21 and 25 that is not drawn to the above elected invention and the subject matter of claims 11-13, 22-24 and 26-30 stands withdrawn under 37 CFR 1.142(b) as being for non-elected subject matter. The

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remaining compounds which are not within the elected invention, which are independent and distinct from the elected invention and do not have unity with the elected compound and are therefore withdrawn by means of a restriction requirement within the claims are, for example, the compounds of the formula (IIa) wherein ring A is other than a pyridine ring; X is a covalent bond or a linking group selected from a sulfone, a sulfoxide, a substituted or unsubstituted amine, or a substituted or unsubstituted methylene; R0 is a substituted or unsubstituted aryl group, a substituted or unsubstituted non-aromatic heterocyclic group, a halogen, -CN-CORa, -CO2Ra, -CONRaRb, -SO2Ra, or -SO2NRaRb; R1 is a substituted or unsubstituted non-aromatic heterocyclic group, -CN, -ORa, -SRa, or -NRaRb; each R2 is a substituted or unsubstituted aryl group or both R2 groups, taken together, are an inert linking group; R3 is a substituted or unsubstituted aryl group, or an electron-withdrawing or electron-donating group; each R4 is a substituted or unsubstituted aryl group; or both R4 groups, taken together with the nitrogen atom to which they are bonded, are a substituted or unsubstituted heterocyclic group, etc.

The above mentioned withdrawn compounds which are withdrawn from consideration as being for nonelected subject matter differ materially in structure and composition from the compounds of the elected invention. The withdrawn compounds differ from those of the elected invention, such as by furanyl, thienyl, and oxazole, etc. which are chemically recognized to differ in structure and function. This recognized chemical diversity of the compounds can be seen by the various classification of these compounds in the U.S. classification system, i.e. class 549 subclass (200)+ furanyl,

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class 549 subclass (1)+ thienyl, class 548 subclass (215)+ oxazole, etc. Therefore, again, the compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and composition and have been restricted properly as a reference which anticipated but the elected subject matter would not even render obvious the non-elected subject matter.

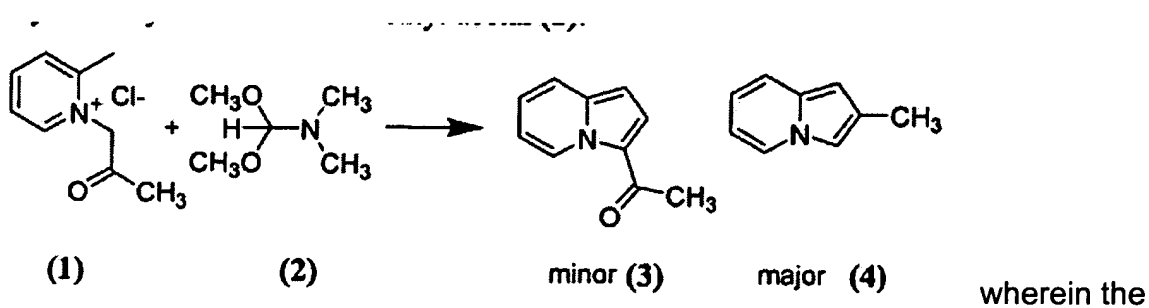
These withdrawn compounds are independent and distinct from the elected invention and do not have unity with the species elected and are therefor withdrawn by means of a restriction requirement within the claims.

The requirement is still deemed proper.

Claim Objections

Claims 1-10, 14-21 and 25 are objected to as containing non-elected subject matter. Claims 1-10, 14-21 and 25 presented drawn solely to the elected invention identified supra as the elected invention for search and examination would overcome this objection.

The closest prior art of record is Coper et al. which discloses the process:



product (3) is produced in a yield of 0-20%. Applicants' instantly claimed elected invention provides out the process as found in Coper et al. with the proviso wherein if R3 is -H, at least one of R2 is a secondary or tertiary alkyl group. Coper et al. does not

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render applicants' instant elected invention obvious as the applicants' specification provides unexpected results wherein the 3-acyl indolizines are prepared in a high yield.

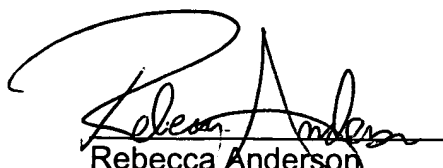
Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rebecca Anderson
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Art Unit 1626, Group 1620
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July 10, 2006